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FHWA SAFETY ACTIVITIES

WHAT'S NEW

Workshops on Traffic Sign Retroreflectivity Completed

FHWA has been actively pursuing research to develop improved understanding of driver needs for night visibility. Minimum levels of retroreflectivity have been developed to provide a benchmark for transportation agencies to determine the adequacy of their traffic signs. These minimum requirements were derived using analytic models of driver needs considering vehicle type, headlights, driver age, sign material features, and other factors.



Over the summer of 2002, **Traffic Sign Retroreflectivity Workshops** were held in Denver, Colorado; Hudson, Wisconsin; College Station, Texas; and Hanover, Maryland to introduce persons from state and local transportation agencies to recently up-dated minimum requirements, and to solicit feedback about the formalization of the requirements and their implementation in current practices. The workshop participants were provided a briefing on the science of retroreflectivity, its measurement, methods used to determine driver needs, and techniques for inspection and replacement of traffic signs to support improved night visibility. Night demonstrations were part of each workshop to allow the participants to see the differences between various levels of retroreflectivity for traffic signs and gain insights on the many factors that influence night visibility. The workshop participants offered their perspectives on the proposed minimum retroreflectivity levels, the need for nighttime inspections of traffic signs, the language to be used in the MUTCD to formally establish a benchmark for night visibility, the methods to apply the benchmarks to in-place signs, and mechanisms to implement better sign management processes. A report summarizing the workshop content and feedback gathered is expected by early 2003. For more information contact Peter Hatzi in the Office of Safety, peter.hatzi@fhwa.dot.gov, 202-366-8036, Ken Opiela, Safety R&D, kenneth.opiela@fhwa.dot.gov, 202-493-3371, or Greg Schertz, Western Federal Lands, greg.schertz@fhwa.dot.gov, 303-716-2094.

Marketing Plan to Promote Retroreflectivity for Nighttime Visibility

FHWA in cooperation with the Roadway Safety Foundation (RSF) is developing a marketing plan and kit to promote traffic sign visibility. The FHWA initiative is intended to call attention to the safety and mobility benefits of highly visible signs using retroreflective-sheeting technologies.

The objective of the marketing effort will be to raise the awareness of and generate support for maintaining retroreflectivity levels for signs to promote nighttime visibility and safety, and encourage highway agencies to implement sign management. The project involves development of marketing materials, a plan for promoting the benefits of retroreflective signs, and activities to inform the highway safety community about sign visibility. For more information contact Peter Hatzi, peter.hatzi@fhwa.dot.gov, 202-366-8036.



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Bicycle Safety Education Resource Center Improved

The Bicycle Safety Education Resource Center housed at <http://www.bicyclinginfo.org/ee/fhwa.html> has been further improved to allow those who have course information posted in it to update the information and to add new course information as well. Additionally, the database now allows new users to create their own username and password and include courses not previously listed. Those wishing to add or change information are assigned a username and password that gives them access to their program materials. Keeping the information in the database current will add significantly to the value of the web site as a whole and will be tremendously helpful to those using the resource.

The Resource Center was recently chosen by the National Science Teachers Association for inclusion on its SciLinks Web page. According to <http://www.scilinks.org/certificate.asp>, "web pages selected for SciLinks are among the best found on the Internet. The Web pages are identified only after going through a rigorous process to ensure that its content is accurate and especially useful to teachers and students. An experienced team of teachers and content experts searches for and evaluates thousands of sites, so SciLinks users can concentrate on teaching and learning the concepts found in their texts." Contact Tamara Redmon, 202-366-4077 or Ann Do, 202-493-3319.

New ITS-Safety Training Workshop Offered

On November 12th and 13th the pilot presentation of the *Improving Highway Safety with ITS Workshop* was held in Madison Wisconsin. This workshop was introduced by Wisconsin's Secretary of Transportation, Tom Carlsen, and featured presentations on ITS safety technology by Mat Lister and on integrating ITS into safety planning by Pete Rusch both from the FHWA's Midwest Resource Center. John Berg, from the Wisconsin Division office, led case study discussions of Wisconsin ITS implementations that were designed to address safety problems. One goal of the workshop was to improve awareness of ITS safety applications and promote their inclusion in the safety planning process. Another goal was to facilitate communication between FHWA staff, state safety specialists, and state ITS specialists by promoting discussion of specific issues as brought out in the local case studies. By all accounts the workshop succeeded at achieving both objectives.

The Safety Office plans to sponsor several more of these workshops over the next year, with each one being customized with case studies from the state, or region, in which it is being offered. The current format is for a two-day session designed for about 25 participants. Other formats may be considered at the request of interested state DOTs. There is no cost to the state, other than the staff time required to help select and research locally relevant ITS safety case studies. Please contact Mac Lister or Pete Rusch at the Midwest Resource Center, mac.lister@fhwa.dot.gov, 708 283-3532 or peter.rusch@fhwa.dot.gov, 608-829-7529 for more information.

Evaluating Highway Safety using ITS Measurements

The FHWA Safety Office has started a new project that is planning to make measurements of traffic flow characteristics at fixed observation stations on freeways and investigate their relationship to the occurrence of crashes in the vicinity. Advances in ITS technology have made it possible to record vehicle by vehicle data and automatically calculate parameters such as speed differential, headway, and deceleration. In the past these kind of measures were collected manually by human observers. Now it is possible to collect more consistent data over a much longer period of time. This project will investigate the relationship between various automatic measures and crashes on the associated segment of highway. It is expected that there will be a correlation between such measured parameters as speed variance and the probability of a crash occurring. Should this correlation prove reliable then the relative safety of the freeway segment can be estimated in near-real time.



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This would lead to better evaluation of the safety performance of highway improvements and operational strategies.

The purpose of this initial work is to develop and validate traffic safety measures that can be used to evaluate the safety performance of a highway facility using ITS deployments as a platform to collect and store these indirect measures for safety assessment. The initial phases of the program will seek to:

- Formulate a set of measures that can be collected using ITS technologies;
- Install equipment at a test site, collect data, and formulate measures; and,
- Validate these measures against data collected on crashes near the test site.

Contact Keith Gates in the Office of Safety, keith.gates@fhwa.dot.gov, 202-366-1896, for more information.

The report of the U.S. DOT Technical Working Group (TWG), *Guidance on Traffic Control Devices at Highway-Rail Grade Crossings* is now posted on the safety website at

<http://safety.fhwa.dot.gov/media/twgreport.htm>. A notice of its availability was published in the Federal Register on December 24. This report is the result of a collaborative effort of the surface transportation agencies within U.S. DOT, representatives from transportation/safety associations and professional organizations, State and local transportation agencies, railroads, public safety officials, universities, consultants and vendors. The purpose of the report is to assist in decisions to install traffic control or otherwise improve highway-rail grade crossings. Contact Debra (Dee) Chappell, 202-366-0087.

Scholarships Available!

The American Traffic Safety Services Foundation's "Roadway Worker Memorial Scholarship Program" provides financial assistance for post-high school education to children of roadway workers killed or permanently disabled in work zones, including mobile operations and the installation of roadway safety features. Scholarships will be awarded through a competitive process and have a value of up to \$2000 each. Click here <http://www.atssa.com/found/roadway.htm> to access a printable application and the scholarship criteria, or contact the ATSS Foundation Department at 800-272-8772.

R & D NEWS

New Staff Member: Office of Safety Research & Development

Gabe Rousseau, Ph.D. began working in November as a research psychologist on the Human Centered Systems team at Turner-Fairbank Highway Research Center. Gabe received his Ph.D. in Cognitive/Experimental Psychology from the University of Georgia in 1998 and also completed a Post Doctoral Fellowship in Psychology at Georgia Tech. For the past 4 years he has worked in the private sector as a human factors researcher. During the past year he worked for SAIC under contract for FHWA as a research psychologist studying pedestrian/bicyclist safety and speed management. Gabe is immediately taking over the human factors research lead in the pedestrian/bicyclist program area (working with Ann Do) and will soon also take on the human factors research lead in the speed management area (working with Davey Warren).



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TRAINING NEWS

One Human Factors Workshop is scheduled for:

- January 29, Indianapolis, Indiana

Contact Beth Alicandri, 202-366-6409.

ONGOING SAFETY PROGRAMS

Variable Speed Limits (VSL) in Work Zones Demonstration Project Underway: Deployment on the Maryland VSL in Work Zones demonstration and evaluation will begin soon. VSL Systems use input regarding speed of traffic and other variables to determine and post an appropriate speed limit that changes in real time. The Maryland demonstration project includes extensive before and after evaluations, including speed profiles and driver performance analyses. Similar projects are underway in Michigan and Virginia. Contact Beth Alicandri, 202-366-6409 or Davey Warren, 202-493-3318.

Cooperative Agreements on Speed Setting and Enforcement Underway: The Commonwealth of Massachusetts Governor's Highway Safety Bureau and the South Central Planning and Development commission in Louisiana have been selected to participate in the joint FHWA/NHTSA field operational tests on speed setting and enforcement. These cooperative agreements will evaluate the effectiveness of a "three E's" (engineering, enforcement, education) approach to address the problem of speeding. The jurisdictions will re-evaluate posted speed limits through rigorous engineering studies, strictly enforce revised speed limits, and educate the community and the judiciary on the whys and hows of the program. Evaluation of the effectiveness of the program is a critical element of the agreements. These two projects join ongoing projects in Mississippi and Connecticut with more projects anticipated in FY 03. Contact Beth Alicandri, 202-366-6409 or Davey Warren, 202-493-3318.

FHWA, with its partners, has finalized a comprehensive national intersection safety agenda:

The agenda was developed at the national intersection safety workshop held at Milwaukee, WI on November 14 - 16, 2001. Also, as a part of the overall effort to enhance intersection safety awareness, FHWA developed a video, **Red Light Green Light**. The purpose of the video is to take a closer look at intersection safety and emphasize the importance of individual responsibility when it comes to making intersections safer.

FHWA held a national intersection safety steering committee meeting in October and the proceedings will soon be posted on the intersection website. Contact Hari Kalla, 202-366-5915, for more information or visit the **new** intersection safety web site at <http://safety.fhwa.dot.gov/programs/intersections.htm>



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Restoring Credibility to Speed Setting: Engineering, Enforcement & Educational Issues is now available on the FHWA Speed Management Safety Website

<http://safety.fhwa.dot.gov/programs/speedmgnt.htm>. The report summarizes the findings of workshops that brought together critical engineering, enforcement, and judiciary personnel to discuss the multi-disciplinary aspects of managing speed. A "planning guide" for others who want to sponsor multi-disciplinary speed management workshops is under development. Contact Beth Alicandri, 202-366-6409 or Davey Warren, 202-493-3318.

Road Safety Audits: This is a process wherein a team of independent experts identifies unsafe roadway conditions during project design or on existing roads. See the report of the International Scanning Team <http://www.international.fhwa.dot.gov/pubs.cfm>. Also see <http://www.roadwaysafetyaudits.org>. A Training Course has been developed and is now available for scheduling. The NHI contact for scheduling is Danielle Mathis-Lee, 703-235-0528.

Operation Lifesavers: <http://www.oli.org> Contact Dee Chappell, 202-366-5892.

Crashworthiness of Roadside Safety Hardware: Since October 1, 1998, virtually all roadside hardware installed on the National Highway System must meet the crash evaluation criteria identified in NCHRP Report 350. The compliance date for transitions to bridge railings and for precast concrete barriers was extended to October 1, 2002. See http://safety.fhwa.dot.gov/fourthlevel/hardware/wzd_new.htm. This site provides information on accepted devices and related FHWA policies. Contact Richard Powers, 202-366-1320: Permanent and Temporary Barriers, Terminals, Bridge Railings/Transitions, and Crash Cushions. Contact Nicholas Artimovich, 202-366-1331: Work Zone Devices, Sign Supports, and Poles.

Seat Belt Safety: The FHWA supports the Buckle Up America campaign to increase seat belt use nationwide. This campaign focuses on building public-private partnerships, enacting strong legislation, maintaining active, high-visibility law enforcement, and conducting effective public education. Contact Shirley Thompson, 202-366-2154 <http://www.buckleupamerica.org>

National Work Zone Safety Information Clearinghouse: The Clearinghouse provides a single contact for information and technical assistance concerning the safe and effective operation of work zones. Clearinghouse: 888-447-5556, Fax: 979-845-0568, <http://wzsafety.tamu.edu>. Contact Ann Walls, 202-366-6836.

Work Zone Safety: Transportation agencies have identified their best practices/policies for minimizing delay and enhancing safety during construction and maintenance operations. See Report at <http://ops.fhwa.dot.gov/wz/bestprac.htm>. Plans are underway for National Work Zone Awareness Week, April 6 - 12, 2003.

Intelligent Transportation Systems (ITS): The FHWA, Office of Safety, is involved in many aspects of ITS development, including Field Operational Tests. Major Safety efforts currently include Variable Speed Limits, Pedestrian ITS, ITS Archived Data User Service (ADUS), Highway-Rail Crossing ITS, Intelligent Vehicle Initiative (IVI) cooperative, and independent infrastructure ITS, and ITS Safety Program Assessments and Resources. Contact Larry J. Brown, 202-366-2214.



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Transportation Safety Information Management Systems (TSIMS): The FHWA, FMCSA, and NHTSA are working with AASHTO to develop a software package for safety information management systems. The system will take advantage of existing analysis and data capture systems and will facilitate safety analysis data by linking different safety-related data. AASHTO and a consultant are developing a solicitation for partners to fund Phase 2, building the software package. Contact the Office of Safety Design, 202-366-9198.

Iowa National Model: Iowa and FHWA have collaborated with NHTSA and FMCSA to develop of a model public safety information system for data collection and management. One of the principal products is a software package (TraCS) that facilitates conversion of forms from paper to electronic, and development of new electronic forms. TraCS has been distributed for free use in Alabama, Arizona, Arkansas, Colorado, Delaware, Georgia, Iowa, Nevada, New Hampshire, New York, Oklahoma, South Carolina, Tennessee, and Wisconsin. TraCS is in use in about 200 local enforcement agencies in Iowa. Several additional states have the free software for evaluation purposes. <http://www.dot.state.ia.us/natmodel> Contact the Office of Safety Design, 202-366-9198.

International Association of Chiefs of Police (IACP) Clearinghouse: The clearinghouse provides agency managers with information on automation projects to help them make more informed decisions on what technology to purchase and use for the collection and distribution of traffic crash data. <http://www.iacptechnology.org> Contact David Smith, 202-366-6614.

See page 7 for a complete listing of upcoming meetings...

Saving Lives – A Vital Goal

Vision: Improving Transportation for a Strong America.

Goal: To continually improve highway safety by reducing the number of highway fatalities and injuries including large trucks. Ensuring safe travel on highways is a guiding principle throughout the FHWA.

Focus: High-risk areas through technical assistance, research, training, data analysis, and public information as well as through compliance and education. The FHWA is working with safety partners to heighten safety awareness within the highway community, business, industry, and the Public.

Top Priorities: Roadway Departure, Intersections, and Pedestrians.



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EVENTS AND MEETINGS

Dates	Location	Event
2003		
January 12 – 16	Washington, DC	82 nd Annual TRB Meeting http://www.nas.edu/trb/
January 31 – February 4 Expo February 2 – 4	New Orleans, LA	ATSSA 33 rd Annual Convention & Traffic Expo www.atssa.com
February 9 – 15	Nationwide	Child Passenger Safety Week http://www.nhtsa.dot.gov
March 9 – 11	Chicago, IL	Lifesavers National Conference http://www.lifesaversconference.org
March 23 – 27	Biloxi, MS	NACE Annual Meeting www.naco.org
April 7 – 11	Nationwide	National Work Zone Awareness Week http://safety.fhwa.dot.gov
May 11 – 17	Nationwide	National Transportation Week
May 19 – 26	Nationwide	Buckle Up America! Week http://www.nhtsa.dot.gov
May 19 – June 1	Nationwide	Click It or Ticket Mobilization http://www.nhtsa.dot.gov
June 14 – 17	Louisville, KY	International Assoc. of Chiefs of Police Highway Safety Meeting
July 13 – 17	Denver, CO	Traffic Records Forum
July 27 – 31	Honolulu, HI	National LTAP Meeting http://www.ltapi.org/
August 24 – 27	Seattle, WA	ITE Annual Meeting & Exhibit http://www.ite.org/
August 24 – 27	New Orleans, LA	Governors Highway Safety Association www.statehighwaysafety.org
August 24 – 27	San Diego, CA	American Public Works Association (APWA) http://www.apwa.net/
September 5 – 12	Chicago, IL	National Safety Council Annual Congress & Expo http://www.nsc.org/
September 5 – 9	Minneapolis, MN	2003 AASHTO Annual Meeting www.aashto.org
September 6 – 12	Nationwide	National Stop on Red Week http://safety.fhwa.dot.gov
October 10	Nationwide	Put the Brakes on Fatalities Day www.brakesonfatalities.org
October 21 – 25	Philadelphia, PA	International Assoc. of Chiefs of Police Annual Conference
November 2 – 5	San Antonio, TX	National Highway-Rail Grade Crossing Safety Conference
November 12 – 15	Nashville, TN	American Society of Civil Engineers Conference www.asce.org
November 18 – December 1	Nationwide	Click It or Ticket Mobilization http://www.nhtsa.dot.gov

Visit our website at <http://safety.fhwa.dot.gov>